

Geologic Time Review

1. Relative Dating – putting events in order by comparison.

List the features from oldest to youngest and then state which laws you used. Define the laws at least once each as well.



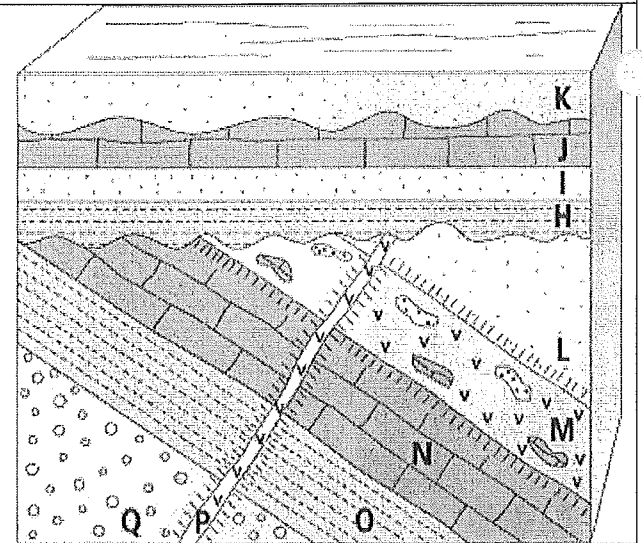
A. Label the oldest as #1, youngest as #3.

B. List and define laws used:

C. _____ Youngest

_____ Oldest

D. List and define laws used:



2. Radiometric Dating – a method of finding a specific numerical age.

a. What restrictions are there when using Carbon 14/Nitrogen 14 dating?

b. Define half-life.

c. Describe how to find the age of a rock using the Uranium 238/Lead 206 isotope.

- d. A rock is found that has 16 parents and 112 daughters in it. If the half-life is 3 million years, how long ago did the magma solidify?

3. Fossils – preserved evidence of past life.

- a. What types of rocks are fossils formed in?
- b. Describe the 6 different types of fossilization methods.

- c. Why would a fossil found in only one location on the Earth not be an index fossil?

Why would a clam shell not be an index fossil?

Why would a fossil found both in the Cambrian and in the Tertiary not be an index fossil?

- d. Sketch the 6 types of phyla that we discussed. State one distinguishing feature of each.

4. Geologic Timescale – Major events in Earth's history are organized.

- a. How did geologists decide where the division lines for the eras and periods go?

b. What are the recent 3 eras the "ages of...." ?

Cenozoic – age of the _____

Mesozoic – age of the _____

Paleozoic – age of the _____

c. Why are there very few fossils found in the Precambrian era?

d. Put the following events in order:

First vertebrates (fish)

First reptiles

First amphibians

Primitive humans

First birds

North America joined to South America

First mammals

Dinosaurs die out

Algae first forms

Uplift of Rockies begins

e. How old is the Earth?

f. Briefly describe the Earth's history starting from the beginning of the universe, the big bang 13.7 billion years ago....